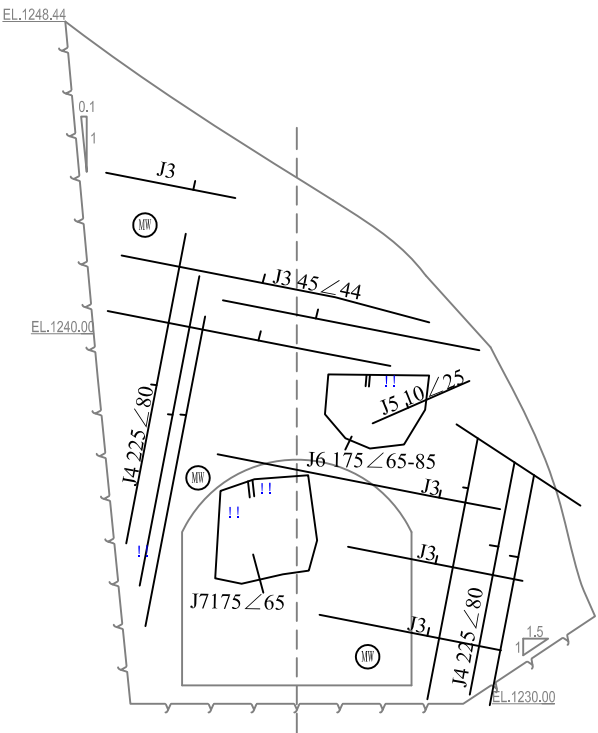


Geological mapping of slope for diversion tunnel outlet

Scale 1:100

Legend



- Mi+Qu Sch Interbedded Mica Schist and Quartz-Schist
- Moderately weathered
- J1 300/35 Joint number and attitude (Dip direction/Dip)
- !! Dripping

Summary of Geological Conditions

Slope Elevation	EL. 1230. 00-EL. 1248. 44
Rock types	Mi+Qu Sch
Rock hardness	Medium hard rock
Degree of weathered	Moderately weathered
Rock attitude (Dip direction/dip)	45° ∠44°
Rock mass classification	III
Groundwater situation	Dry local dripping

STAKE	TUNNEL	ROCTYPEK	UCS	GROUND WATER	RQD	Jv	Jn	Jr	Ja	Jw	SRF	Q= $\frac{RQD \times J_r \times J_w}{J_n \times J_a \times SRF}$	ROCKMASS CLASS	DATE
	DIRECTION	Mi+Qu Sch		GW1	70	13.6	6	1.5	1	1	2.5	7	III	2022.1.16
NO.	Occurrence		SEPARATION (m)	JOINTS GROUP		PERSISTENCE	ROUGHNESS/ APPEARANCE	FILLING	WEATHER OF ROCK WALL	FAULT		UCS		
	Dip direction	Dip angle		SPACING	NUMBER					INFLUENCEDZONE (m)	NATURE	Very high	>250	
												High	100-250	
												medim high	50-100	
J3	45	44	C1	SP1	20	C3	R2	F3、F4	W3			moderate	25-50	
J4	225	80	C2	SP1	8	C3	R2	F4	W3			Low	5-25	
J5	10	25	C2			C2	R2	F4	W3			Very low	1-5	
J6(Plane)	175	65-85	C0			C2	R4		W3			RQD%		
J7(Plane)	175	65	C0			C2	R4		W3			Excellent quality	90-100%	
	SEPARATION(APERATURE)		SPACING OF JOINTS		PERSISTENCE		ROUGHNESS/APPEARANCE		FILLING		Good quality		75-90%	
	C0:Very tight <0.1mm		SP1:VERY WIDE >2m		C1:Very Low <1m		R1:very rough surfaces		F1:rock sillar F8: Breccia		Fair quality		50-75%	
	C1:Tight 0.1-0.5mm		SP2:WIDE:0.6-2m		C2:Low 1-3m		R2:rough surfaces		F2:rock sliver F9:Cataclasite		Poor quality		25-50%	
	C2: open 0.5-2.5mm		SP3:200-600mm		C3:medium 3-10m		R3:slightly rough surfaces		F3:rock fragments F10:Mylonite		Very poor quality		<25%	
	C3: open 2.5-10mm		SP4:60-200mm		C4:High 10-20m		R4:smooth surfaces		F4:rock powder F11:Fault clay		GROUND WATER CONDITION			
	C4: Wide 10-30mm		SP5:<60mm		C5:Very high >20m		R5:slickensided surfaces		F5:Calcium film F12:Sliced rock		GW1		Completely dry	
	C5: Very wide >30mm				E0: Left wall		A1:planar		F6:Calcite vein F13: argillized seam		GW2		Damp	
	WEATHER OF ROCK WALL				E1: Top wall		A2:stepped		F7:Quartz vein F14:clay course		GW3		Wet	
	W1:unweathered		W2:slightly weathered		E2: Right wall		A3:undulating		F15: weak intercalated layers siltized		GW4		Dripping	
	W3:moderately weathered		W4:highly weathered						F16: Fractured zone		GW5		Flowing	

NOTE

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0	23.JAN. 2022	FOR APPROVAL	CHEN G.J.	K.J.KIM	Y.S.SON
REV. NO.	DATE	DESCRIPTION	DRAWN	CHKD.	APPD.

PROJECT TITLE				
Upper Trishuli-1 HEP (216MW)				
OWNER				
OWNER'S ENGINEER				
CONTRACTOR				
DRAWING TITLE				
Geological mapping of slope for diversion tunnel outlet				
INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.	
A	UT1-C-855-G-diversion-02	1 OF 1	0	